

Antegrade Versus Combined Antegrade/Retrograde Cardioplegia in Coronary Artery Bypass Grafting in Left Main Coronary Artery Stenotic Disease

Submitted for Partial Fulfillment of the MD Degree
In Cardiothoracic Surgery

BY

Ahmed Abd El Samai Said
(M.B.,B.Ch;M.Sc.General Surgery)

Under Supervision of

Prof. Dr. Tarek Mounir Mohamed El Sayegh

Professor of Cardiothoracic Surgery
Ain Shams University

Prof. Dr. Hesham Abd El Rahman Zaky

Professor of Cardiothoracic Surgery
Ain Shams University

Prof. Dr. Ahmed Abd El Aziz Ibrahim

professor of Cardiothoracic Surgery
Ain Shams University

Prof. Dr. Osama Abass Abd El Hameed

Assistant Professor of Cardiothoracic Surgery
Ain Shams University

**Faculty of Medicine
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مقارنة بين الطريقة الأمامية و جمع الطريقة الأمامية/العكسية
لاعطاء المحلول المشل لعضلة القلب اثناء جراحة توصيل
الشرايين التاجية فى مرضى ضيق الشريان التاجى الرئيسى
الأسير

رسالة

توطئة للحصول علي درجة الدكتوراة في جراحة القلب و الصدر

مقدمة من

الطبيب/ أحمد عبد السميع سعيد

بكالوريوس الطب و الجراحة- ماجستير الجراحة العامة

تحت اشراف

الأستاذ الدكتور/ طارق منير محمد الصايغ

أستاذ جراحة القلب و الصدر
كلية الطب – جامعة عين شمس

الأستاذ الدكتور/ هشام عبد الرحمن زكي

أستاذ جراحة القلب و الصدر
كلية الطب – جامعة عين شمس

الأستاذ الدكتور/ أحمد عبد العزيز ابراهيم

أستاذ جراحة القلب و الصدر
كلية الطب – جامعة عين شمس

الأستاذ الدكتور/ اسامة عباس عبد الحميد

أستاذ مساعد جراحة القلب و الصدر
كلية الطب – جامعة عين شمس

كلية الطب

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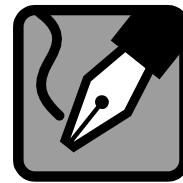
I wish to express my great gratitude and ultimate thanks to the soul of **Prof. Dr. Hesham Abd El Rahman Zaky**, professor of cardiothoracic surgery, faculty of medicine, Ain Shams University.

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

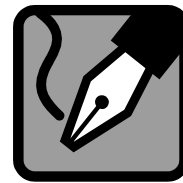
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عَلَّمْتَنَا
إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ
صدق الله العظيم

البقرة الآية ٣٢



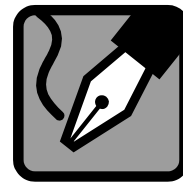
Introduction





Aim of the Work





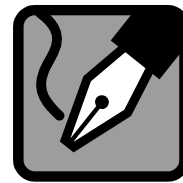
Review of Literature





Patients and Methods





Results





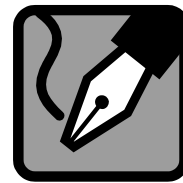
Discussion





Summary and Conclusion





References





Arabic Summary



ABSTRACT

Antegrade versus combined antegrade/retrograde Cardioplegia in coronary artery bypass Grafting in Left main coronary artery stenotic disease

Authors: Abd El Samai A^a, El Saegh TM^a, Abd El Aziz A^a, Abass O^a.

^a Department of Thoracic and Cardiovascular Surgery, Ain Shams University Hospital, Egypt.

Background: The optimal route for delivery of cardioplegia is still in debate in patients with ischemic heart disease. Cardiac troponin-I is a marker with the potential for detection of minor differences in myocardial ischemia.

Objective: The aim of this work is to find out the optimum route to deliver cardioplegia solution in case of Left main coronary artery stenotic disease (left main stem or left main equivalent).

Methods : In a prospective randomized trial 100 patients with Left main coronary artery stenotic disease undergoing coronary artery bypass grafting were divided into groups with antegrade (group A, n = 50) and combined antegrade/retrograde (group AR, n = 50) application of cold blood cardioplegia (prepared using St. Thomas II solution). In addition to routine electrocardiogram monitoring, cardiac troponin-I activity was measured in all patients preoperatively at 2, 8, 24, and 48 hours after aortic cross-clamp release, and at hospital discharge. Echocardiography was performed preoperatively and before hospital discharge. Aortic cross-clamp time, total cardiopulmonary bypass time and time was taken by the heart to resume beating after removal of aortic cross clamp were recorded.

Results : In this study the age ranged from 35 to 75 years, Twenty-seven patients (27%) had previous history of myocardial infarction. Hypertension was the highest incident preoperative risk factor (52%)